

BLACK CUMIN (*NIGELLA SATIVA*) INFUSION TO BROILER'S BURSA OF FABRICIUS WEIGHT AND HISTOPATOLOGIC APPEARENCE THAT EXPOSED BY *HEAT STRESS*

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ABSTRACT

Broilers were vulnerable to hot weather. The global warming made the broilers susceptible to heat stress. This purpose of this research was to know the effect of black cumin infusion and broiler's bursa of Fabricius exposed to heat stress. This research used 28 broilers of 2 weeks ages that divided into 4 different groups. First group (P0) was a positive control group, was not exposed by heat stress and black cumin infusion. Second group (P1) was not exposed by heat stress but was given the black cumin infusion. Third group (P2) was exposed by heat stress but was not given the black cumin fusion. Fourth group (P3) was exposed by heat stress and was given the black cumin fusion. After 7 days of treatment, broiler's bursa of Fabricius was taken to observe the bursa of Fabricius's follicle diameter by microscopic. Collected data was analyzed with ANOVA test. The research showed that black cumin infusion could increase the bursa of Fabricius weight and improved the bursa of Fabricius histopathology exposed by heat stress as measured by the follicle diameter.

Keyword: *heat stress, Nigella sativa, bursa Fabricius, broilers*